

CLAIMS

1. A process for producing a coated sheet, comprising the step of applying a coating solution containing a resin material and a solvent onto a substrate film to form a coating layer and the step of drying the applied coating solution,

wherein dry wind is blown along the traveling direction of the film onto the surface of the coating layer wherein the coating solution has a solid content of 55% by weight or less and a viscosity of 20 mPa·s or less.

2. A process for producing a coated sheet, comprising the step of applying a coating solution containing a resin material and a solvent onto a substrate film to form a coating layer having a solid content of 55% by weight or less and a viscosity of 20 mPa·s or less,

the step of blowing dry wind along the traveling direction of the substrate film onto the coating layer, and

the step of drying the coating layer.

3. The process for producing a coated sheet according to claim 1 or 2, wherein a wind speed of the blown dry wind is from 4 to 20 m/sec., and a scattering in the wind speed in the width direction of the film is $\pm 30\%$ or less.

4. The process for producing a coated sheet according to any one of claims 1 to 3, wherein a temperature of the blown dry wind is from 20 to 45°C, and a scattering in the temperature in the width direction of the film is $\pm 15\%$ or less.

5. The process for producing a coated sheet according to any one of claims 1 to 4, wherein the thickness of the dried coating layer is 30 μm or less.

6. The process for producing a coated sheet according to any one of claims 1 to 5, wherein a material which makes an optical function is used in the coating solution,

thereby forming the coating layer as an optically functional layer.

7. The process for producing a coated sheet according to claim 6, wherein a material which makes an optically compensating function is used as the material which makes the optical function, thereby forming the coating layer as an optically compensating layer.

8. The process for producing a coated sheet according to claim 7, wherein the optically compensating layer forms a cholesteric layer wherein constituent molecules are oriented in the state of a cholesteric structure.

9. The process for producing a coated sheet according to claim 7 or 8, wherein as the material which makes the optically compensating function, a liquid crystal monomer is used, and after the drying step the coating layer is subjected to polymerizing treatment or crosslinking treatment,

thereby forming a cholesteric layer having constituent elements of a non-liquid-crystal polymer wherein the liquid crystal monomers are polymerized or crosslinked.

10. The process for producing a coated sheet according to claim 7 or 8, wherein as the material which makes the optically compensating function, a liquid crystal monomer or a liquid crystal polymer is used, thereby forming a cholesteric layer having constituent elements of an oriented liquid crystal polymer having a cholesteric structure.

11. The process for producing a coated sheet according to any one of claims 8 to 10, wherein a thickness of the cholesteric layer ranges from 0.5 to 10 μm .

12. An optically functional layer, which is obtained by the production process according to any one of claims 6 to 11.

13. An optically compensating plate, which is obtained by the production process according to any one of claims 7 to 11.

5 14. An optical device, which comprises the optically functional layer according to claim 12.

15. An optical device, wherein at least one polarizing plate is laminated on the optically compensating plate according to claim 13.

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16. An image display wherein the optically functional layer according to claim 12, the optically compensating plate according to claim 13, or the optical device according to claim 14 or 15 is mounted.